

Amended Claim 2009 May 18

1. (~~Original~~Currently Amended) A freight management method, comprising
sensing a condition on a freight asset;
transmitting the information concerning the sensed condition over a wireless
system to a monitor system in one format;
translating the information concerning the sensed condition into a second format;
transmitting the information concerning the sensed condition from the monitor
system in the second format to a user capable of receiving in the second format;
the step of sensing the condition on the freight asset includes monitoring the
condition automatically and in real time;
the step of transmitting the information concerning the sensed condition to the
monitor system includes automatically responding to the condition in real time;
the step of translating the information concerning the sensed condition including
converting open system messages into existing information system messages of the user
in the form of industry standard freight messages;
the step of transmitting the information concerning the sensed condition from the
monitor system being in industry standard freight message format;
whereby said standard freight message provides immediate context for the user.

2. (~~New~~Currently Amended) A freight management method as in claim 1, ~~wherein~~further
comprising

~~said step of transmitting the information concerning the sensed condition over a
wireless system to a monitor system in one format includes responding to a trigger
condition derived from user designated locations, destination areas, and freight
operational settings and conditions on the asset, organized to allow automatically sensing
a plurality of conditions on a plurality of assets associated with respective ones of a
plurality of users in real time;~~

automatically transmitting the information concerning the sensed conditions over the wireless system to the monitor system in one of a plurality of formats in real time;

translating the information concerning the sensed ~~condition~~conditions into the ~~second~~an industry standard freight message format-;

transmitting the information concerning the sensed condition from the monitor system to respective ones of the plurality of users all in the second format;

said step of transmitting the information concerning the sensed conditions over a wireless system to the monitor system in one format includes responding to trigger conditions derived from user designated locations, destination areas, and freight operational settings and conditions on the asset;

the step of translating the information concerning the sensed conditions including converting open system messages into existing information system messages of the user in the form of industry standard freight messages.

3. (Currently Amended) A freight management method as in claim 4~~2~~, further comprising:

in the monitor system comparing of the sensed ~~condition~~conditions from the monitor system transmitted over the wireless system with ~~a standard~~respective ones of a plurality of predetermined ~~condition~~conditions specified within ~~a standard~~ freight shipment messages, to notify users of ~~a disparity~~respective disparities with the ~~predetermined conditions~~ and provide status updates in the standard freight shipment message of the user~~plurality of users~~; and

automatically transmitting via the wireless ~~control means~~system a change command to automatically change the actual condition on the asset to conform to the condition specified in the respective user's standard freight shipment message.

4. (~~New~~Currently Amended) A freight management method as in claim 1, wherein:

~~a the translator identifies conditional information contained within a standard freight message with corresponding conditional~~compares information transmitted by a user predetermined conditions specified within industry standard freight message format with corresponding information concerning the condition transmitted via wireless communications to a remote monitoring device attached to a freight asset;

~~the conditional~~the specified information containing one of a user designated location, a commodity's pre-determined temperature set point setting, an arrival notification, a departure notification, attachment of auxiliary power equipment, in the format a user within the freight shipment documentation;

causing said translator to reconcile events derived from wireless communications directly in the format contained in the freight message of gps coordinates to a "named area or location" in a standard shipping document, thereby allowing a specific sensor reading to be directly applied through the entire monitoring, communication and network path to create notifications that the documented shipment condition is initiated, satisfied or terminated-

5. (~~New~~Currently Amended) A freight management method as in claim 2, wherein:

Automatically transmitting the information concerning the sensed condition over a wireless system to a ~~the~~ monitor system ~~occurs automatically~~ by extracting relevant information from standard freight shipment messages and delivering predetermined conditions via the use of a ~~translation process~~the translator.

6. (~~New~~Currently Amended) A freight management method as in claim 1, wherein:

transmitting the information concerning the sensed condition over a wireless system to a monitor system includes wireless notification transmissions events in real-time in real-time from a freight asset, based on pre-determined conditions identified in a standard freight message to the monitor, and, ~~through a translation process, translating information and associating the messages~~ the transmission with a meaningful event to be used for tracking and monitoring of freight assets.

7. (~~New~~Currently Amended) A freight management method as in claim 1, wherein:

transmitting the information concerning the sensed condition over a wireless system to a monitor system includes wireless notification transmissions events in real-time in real-time from a freight asset, based on pre-determined conditions identified in a standard freight message, and, ~~through a translation process, by transmission to and from the translator~~, associating the transmission with a meaningful event to be used for tracking and monitoring of a commodity transported in a freight shipment.

8. (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

evaluating information about freight shipments, contained within standard freight messages, including one of terminal operations and intermodal ramp activities and related activities within the sensors,

automatically triggering and communicating in real time via the a wireless system for automatically generating status notifications ~~such that the triggering results in the creation of the standard freight message from the entry of the sensor into an area governed by GPS coordinates on the an~~ intelligent device, pre-determined by the designated locations in the ~~customer's freight~~users's systems, corresponding to the ~~customers' users'~~users' designated location, delivered in the ~~same customer-oriented~~second format ~~generic to the customer's user's freight system in real-time, whereby,~~

9. (Currently Amended) A freight management method as in claim 1, further comprising:

automatically transmitting specific arrival information contained in standard freight messages to the translator and departure freight messages are created automatically by wireless communications for from the same designated locations of the user and in the user's freight equipment format.

9. (New) A freight management method as in claim 1, further comprising:

automatically applying specific conditional information contained in standard freight messages translator to automatically evaluate prescribed and pre-determined shipment conditions to actual shipment conditions communicated by wireless communications, including a prescribed temperature set point setting for a commodity identified in the standard freight messages of refrigerated transport equipment.

10. (New/Currently Amended) A freight management method as in claim 1, further comprising:

automatically comparing of the weight of the a load of a freight asset in one of the monitoring systems and the weight specified by a user by comparison in the translator.

11. (New/Currently Amended) A freight management method as in claim 1, further comprising:

evaluating messages initiated by a sensor at one of terminal operations and intermodal Ramp Activity ramp activity, and freight asset location messages and related status messages, triggered by a change in a critical condition and transmitting to the translator and from the translator to allow immediate exception reporting in one of a monitoring system or a user system.

12. (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

evaluating pre-determined conditional information contained in standard freight messages, including one of bills of lading and waybills, to compare pre-determined shipment conditions, including a set point temperature of a commodity within a freight asset, and automatically sending commands to an intelligent device including the sensor on the freight ~~asset~~asset to change the condition, including the set point temperature, to be compliant with the pre-determined condition in the standard freight message appropriate for ~~the~~a commodity on the freight asset;

~~said sensor sending a confirmation notification that the of a change in a condition, such as the set point temperature, is changed, and the at a sensor and~~ confirmation of the actual ~~conditional change is incorporated into change to said translator and transmitting the confirmation notification from the sensor as a standard freight status message in the format of the user's system to assure compliance to the specified condition.~~

13. (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

transmitting a command to the translator and from the translator to a sensor to lock doors of freight asset when the asset has left a prescribed location contained in the standard freight message.

14. (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

automatically initiating a shipment status message in standard shipment formats, using real-time information from a sensor by ~~requesting it via wireless communications, and transmitting to the translator and from the translator wirelessly transmitting information in the standard freight message.~~

15. (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

~~Loading~~loading pre-determined conditions and trigger events with ~~a the~~ translator onto a sensor on a freight asset, said conditions corresponding to the standard conditions transmitted to the translator and contained within standard freight messages, such as including designated locations, set point temperature and presence of auxiliary equipment.

16 (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

triggering onto a sensor events which correspond terminal operations and intermodal ramp activity and related standard freight messages' relevant status information ~~to permit a direct linkage between,~~ by transmitting the sensor events to the translator and from the translator to the users of standard freight information trigger events and corresponding trigger events managed by a sensor.

17, (~~New~~Currently Amended) A freight management method as in claim ~~4~~2, further comprising:

establishing pre-determined conditions and trigger events on a fleet of freight assets ~~corresponding to an individual user~~associated with a user, and establishing other pre-determined conditions and trigger events on an entirely separate fleet associated with another user, etc. on the basis of ~~relevant~~ information in the standard freight shipment messages transmitted to the translator and from the translator to the sensors, including one of lading, waybills, status messages, and location messages.

18. (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

wireless intelligence including ~~a~~the sensor on a freight asset to evaluate status conditions that automatically trigger transmissions, ~~which are translated and~~
translating the status conditions into industry standard freight messages, ~~the messages~~
to include EDI and XML-based standard freight shipment messages, including but not limited to EDI 322.

19. (~~New~~Currently Amended) A freight management method as in claim 1, further comprising:

~~tightly coupling mounting intelligent wireless devices~~ and integrating the
intelligent wireless devices mounted on freight assets with standard shipment messages communicating relevant shipment conditions in the same format via ~~a~~the translator.